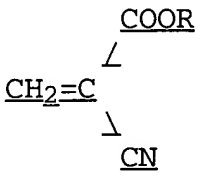
[, said adhesive material formulated to cure in from about 0.25 seconds to 60 seconds;]

placing the die on the leadframe [in contact] with the adhesive material in contact with the die and the leadframe to form an adhesive layer therebetween; and

[polymerizing] curing the adhesive material [to form a cured adhesive layer and] at the temperature and at the ambient atmosphere in less than 60 seconds to bond the die to the leadframe.

2. (amended) The method [as claimed in] of claim 1 wherein the cyanoacrylate adhesive comprises a monomer with a formula:



wherein R comprises a hydrocarbon group.

[adhesive material comprises a material selected from the group consisting of cyanoacrylates, anaerobic acrylics or the like.]

3. (amended) The method [as claimed in] of claim 1 further comprising applying a catalyst to the leadframe, to the die, or to the adhesive material to initiate the [polymerizing] curing step.

4. (amended) The method [as claimed in] of claim 1 wherein the leadframe comprises a lead-on-chip leadframe.

[includes a mounting paddle.]

5. (amended) The method [as claimed in] of claim 1 further comprising providing the leadframe with condensed ambient humidity and initiating the curing step using the humidity.

[wherein the leadframe comprises a lead-on-chip leadframe.]

6. (amended) A method for attaching a semiconductor die to a leadframe:

providing the leadframe and the die with condensed ambient humidity;

[a mounting paddle;]

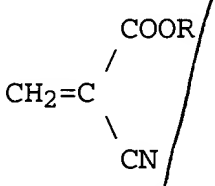
providing a cyanoacrylate adhesive material formulated to cure in less than about 60 seconds at a temperature of about 20°C to 30°C and at an ambient atmosphere;

[dispensing a] applying the cyanoacrylate adhesive material [on the mounting paddle] to the leadframe or to the die;

placing the die [in contact with the adhesive material] on the leadframe with the adhesive material compressed between the die and the leadframe to form an adhesive layer therebetween; and

[polymerizing] curing the adhesive [material] layer at the temperature and the ambient atmosphere in less than 60 seconds by interaction of the adhesive material with the humidity to [form a cured adhesive layer and] bond the die to the leadframe.

7. (amended) The method [as claimed in] of claim 6 wherein the cyanoacrylate adhesive comprises a monomer with a formula:



wherein R comprises a hydrocarbon group.

8. (amended) The method [as claimed in] of claim 6 wherein the [dispensing] applying step comprises a method

selected from the group consisting of syringe dispensing, stenciling, dip coating, spraying, and dot shooting.

9. (amended) The method [as claimed in] of claim 6 wherein the [dispensing] applying step [the adhesive material] comprises forming a [pattern] plurality of dots of the adhesive material on the leadframe.

10. (amended) The method [as claimed in] of claim 6 further comprising [adding a constituent to] providing the adhesive material with a filler comprising a material selected from the group consisting of SiO_2, Al_2O_3, AlN, Ag, Ni, Fe, SiC, and polystyrene coated Ni.
[electrically conductive fillers, electrically insulating fillers, reinforcement fillers, catalyst fillers, heat conductive fillers, moisture resistance fillers and thermal stability fillers.]

11. (amended) The method [as claimed in] of claim 6 further comprising applying a catalyst to the leadframe, to the die, or to the adhesive material to initiate the curing step, the catalyst comprising a compound selected from the group consisting of water and acid.
[wherein the polymerizing step is initiated by condensed ambient humidity present on the leadframe.]

12. (amended) A method for attaching a [lead-on-chip] semiconductor die to a [lead-on-chip] leadframe:

providing the leadframe with a plurality of lead fingers configured to form a die mounting area;

[dispensing a cyanoacrylate] applying an adhesive material on the lead fingers [in the die mounting area] or on the die, [said] the adhesive material comprising a cyanoacrylate adhesive formulated to cure in less than about 60 seconds at a temperature of about 20°C to 30°C and at an ambient atmosphere, and an electrically insulating filler

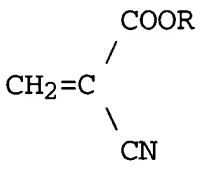
configured to increase a dielectric strength of the adhesive material;

placing the die on the lead fingers with the adhesive material in contact with the [adhesive material] die and the lead fingers to form an adhesive layer therebetween; and

[polymerizing] curing the adhesive [material to form a cured adhesive layer and] layer at the temperature and the ambient atmosphere in less than 60 seconds to bond the die to the lead fingers.

13. (amended) The method [as claimed in] of claim 12 further comprising applying a catalyst to the lead fingers, to the die or to the adhesive material prior to the placing step.

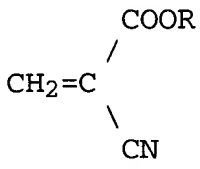
14. (amended) The method [as claimed in] of claim 12 wherein the cyanoacrylate adhesive comprises a monomer with a formula:



wherein R comprises a hydrocarbon group.

15. (amended) A method for attaching a semiconductor die to a leadframe comprising:

providing an adhesive material comprising a cyanoacrylate monomer having a formula:



wherein R is a hydrocarbon group, the adhesive material formulated to cure in less than about 60 seconds at a

temperature of about 20°C to 30°C and at an ambient atmosphere;

[dispensing] applying the adhesive material to [on] the leadframe or to the die;

applying a catalyst to the leadframe or to the die;

[pressing] placing the die [against] on the leadframe with the adhesive material compressed between the die and the leadframe to form an adhesive layer therebetween; and

curing the adhesive layer at [a room] the temperature and the ambient atmosphere in less than 60 seconds by interaction of the adhesive material with the catalyst to [form a cured adhesive layer and] bond the die to the leadframe.

16. (amended) The method [as claimed in] of claim 15 wherein the catalyst comprises a compound selected from the group consisting of water and acid.

[further comprising applying a catalyst to the leadframe, die or adhesive prior to the step.]

17. (amended) The method [as claimed in] of claim 15 further comprising providing the adhesive material with a [constituent] filler comprising a material selected from the group consisting of SiO_2, Al_2O_3, AlN, Ag, Ni, Fe, SiC, and polystyrene coated Ni.

[electrically conductive fillers, electrically insulating fillers, reinforcement fillers, catalyst fillers, heat conductive fillers, moisture resistant fillers and thermal stability fillers.]

18. (amended) The method [as claimed in] of claim 15 wherein the leadframe comprises a mounting paddle [for] for attaching the die.

19. (amended) The method [as claimed in] of claim 15 wherein the leadframe comprises a lead-on-chip leadframe comprising a plurality of lead fingers for attaching the die.

20. (amended) The method [as claimed in] of claim 15 wherein the [dispensing] applying step comprises a method selected from the group consisting of syringe dispensing, stenciling, dip coating, spraying, and dot shooting.

21. (amended) A method for attaching a semiconductor die to a leadframe comprising:

providing an adhesive material comprising an anaerobic acrylic formulated to cure in less than about 60 seconds at a temperature of about 20°C to 30°C and at an ambient atmosphere;

[dispensing] applying the adhesive material to [on] the leadframe or to the die;

[pressing] placing the die [against] on the leadframe with the adhesive material compressed between the die and the leadframe to form an adhesive layer therebetween; and

curing the adhesive layer at [a room] the temperature and the ambient atmosphere in less than 60 seconds to [form a cured adhesive layer and] bond the die to the leadframe.

22. (amended) The method [as claimed in] of claim 21 further comprising providing the adhesive material with a [constituent] filler comprising a material selected from the group consisting of SiO_2, Al_2O_3, AlN, Ag, Ni, Fe, SiC, and polystyrene coated Ni.

[electrically conductive fillers, electrically insulating fillers, reinforcement fillers, catalyst fillers, heat conductive fillers, moisture resistance fillers and thermal stability fillers.]

40. (added) The method of claim 22 further comprising applying a catalyst to the leadframe, to the die, or to the adhesive material to initiate the curing step.

41. (added) The method of claim 40 wherein the leadframe comprises a lead-on-chip leadframe.

42. (added) A method for attaching a semiconductor die to a leadframe:

providing an adhesive material comprising an anaerobic acrylic formulated to cure in less than about 60 seconds at a temperature of about 20°C to 30°C and at an ambient atmosphere;

applying the adhesive material to the die or to the leadframe;

applying a catalyst to the leadframe or to the die;

placing the die on the leadframe with the adhesive material in contact with the die and the leadframe to form an adhesive layer therebetween; and

curing the adhesive material at the temperature and at the ambient atmosphere in less than 60 seconds by interaction of the adhesive material with the catalyst to bond the die to the leadframe.

43. (added) The method of claim 42 wherein the leadframe comprises a lead-on-chip leadframe.

44. (added) The method of claim 42 further comprising adding a filler to the adhesive material comprising a material selected from the group consisting of SiO_2, Al_2O_3, AlN, Ag, Ni, Fe, SiC, and polystyrene coated Ni.